

WHAT IS CLAIMED IS:

- 1           1.       A distributed emergency building lighting system comprising:  
2                    an electroluminescent (EL) panel;  
3                    means for providing electrical power to illuminate said EL panel; and  
4                    control means electrically coupled to said electrical power means and  
5           said EL panel for illuminating a predetermined designated area within the  
6           building in response to an input stimulus.
- 1           2.       Emergency building lighting system as defined in claim 1, wherein said  
2           predetermined designated area further comprises low-level path marking to  
3           provide visual delineation of the path of egress.
- 1           3.       Emergency building lighting system as defined in claim 1, wherein said  
2           predetermined designated area further comprises floor illumination within a  
3           prescribed distance from at least one wall of a room in accordance with code  
4           requirements.
- 1           4.       Emergency building lighting system as defined in claim 2, wherein said  
2           EL panel is a stripe of indeterminate length located on one or more of a  
3           designated area including on a floor and on a wall at or near the floor in  
4           accordance with code requirements.
- 1           5.       Emergency building lighting system as defined in claim 2, wherein said  
2           EL panel lights an exit sign at or near the floor in accordance with code  
3           requirements.
- 1           6.       Emergency building lighting system as defined in claim 1, wherein said  
2           power means further comprises an EL power supply having an input coupled  
3           to the line side of an electrical switch supplying commercial AC power to the  
4           conventional lighting located in said designated area and to a DC voltage  
5           source in the absence of AC power at the line side of said electrical switch.

1 7. Emergency building lighting system as defined in claim 6, wherein said  
2 EL power supply further includes means for adjusting the light intensity of the  
3 EL panel to a desired intensity.

1 8. Emergency building lighting system as defined in claim 1, wherein said  
2 control means further includes self-diagnostic testing means for verifying  
3 operational conditions of the lighting system including the detection of an  
4 electrical short circuit and an electrical open circuit of an EL panel coupled to  
5 said control means.

1 9. Emergency building lighting system as defined in claim 8, wherein said  
2 self-diagnostic testing means includes detection of a normal operating circuit  
3 of an EL panel coupled to said control means.

1 10. Emergency building lighting system as defined in claim 8, wherein said  
2 self-diagnostic testing means includes detection of an inoperative electrical  
3 power means.

1 11. Emergency building lighting system as defined in claim 8, wherein said  
2 self-diagnostic testing means further comprises testing means for determining  
3 the charge capacity of the battery.

1 12. Emergency building lighting system as defined in claim 11, wherein  
2 said battery testing means further comprises means for connecting a test  
3 electrical load to the battery for a predetermined short time interval;  
4 means for sensing the battery voltage during the short time interval that  
5 said test electrical load is connected, and  
6 means for providing an alarm indication in response to the battery  
7 voltage falling below a predetermined voltage value during the voltage sensing  
8 time interval.

1 13. Emergency building lighting system as defined in claim 12, wherein the  
2 test electrical load is in the range of 10 to 20 times the electrical load of the  
3 emergency building lighting system.

1 14. Emergency building lighting system as defined in claim 13, wherein  
2 said predetermined short time interval is in the range of 10 to 30 seconds.

1 15. Emergency building lighting system as defined in claim 8, further  
2 comprising means for activating said self-diagnostic testing means in  
3 accordance with a predetermined time schedule.

1 16. Emergency building lighting system as defined in claim 8, further  
2 comprising means for manually activating said self-diagnostic testing means.

1 17. Emergency building lighting system as defined in claim 8, further  
2 comprising means for activating said self-diagnostic testing means in response  
3 to the conventional lighting located in said designated area being turned on  
4 and off.

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